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RANGELAND MANAGEMENT PROGRAM

GRAND JUNCTION RESOURCE AREA

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FOREWORD

It is my pleasure to make available to you a summary of alternatives and the selected rangeland management program for the Grand Junction Resource Area in Colorado.

After considering all public comments, and the natural and human resources of the area, I believe this program is most responsive to the public need for wise use, protection and enhancement of all the resource values. The benefits to be derived from the implementation of this program are within the concept of multiple use, maintaining a viable livestock industry and assuring benefits for wildlife, watershed and related resources as they exist on Federal range lands.

I appreciate the support and assistance given to the District Office from various groups, individuals, and local governments who have a vital interest in the management of these public lands.

DALE R. ANDRUS
State Director, Colorado
Bureau of Land Management

I. INTRODUCTION

The Bureau of Land Management has completed an Environmental Statement on the grazing management for the Grand Junction Resource Area. This document is a summary of that statement and the final decision to implement the proposed program.

Livestock production and irrigated farming have been the major bases of the economy in the Grand Junction Resource Area since the mid-nineteenth century. The grazing use pattern in the area has developed over a period of about 100 years. Ranchers moved livestock from lower elevation private lands as greenup occurred to intermediate public and private lands in the spring; then to higher elevation land, usually national forest lands, for the summer; then onto public lands in the fall; and finally back onto private lands before winter.

The 1934 enactment of the Taylor Grazing Act, with succeeding amendments, was the basic legislative authority governing the management and protection of the lands. It provided authority to develop rules and regulations for the orderly use, improvement, and development of these lands.

In more recent years, BLM policies have directed increased emphasis on livestock grazing management. This is accomplished through more intensive allotment management planning that may adjust kind of livestock, livestock numbers, or period of use to maintain or enhance the condition of the basic resources of soil and vegetation and consider other multiple use values. Increased allotment supervision by BLM and grazing operators consequently develops a better awareness of each party's objectives, problems, and needs for coordination.

The Grand Junction Resource Area is not producing the full potential of forage and over 400,000 acres of range are in poor condition and need improvement.

The Resource Area consists of 2,046,314 acres, of which 1,200,857 acres are public lands managed by BLM. This total includes eight livestock grazing allotments in Utah which are managed by the Grand Junction Resource Area office to reduce administrative costs and efforts. At present 138 operators graze livestock on 265 allotments. Current established allotments vary from 15 to 94,387 acres in size and grazing capacities range from 2 to 9,280 animal unit months (AUMs). Three allotments are managed under fully implemented allotment management plans (AMPs). Eight other allotments have partially implemented AMPs. Currently the BLM is licensing 94,526 AUMs of livestock grazing use.

BLM-managed lands provide 8 percent of the total forage demands of the livestock industry in the Resource Area.

Use of the public lands in the area over the last 20 years has increased in energy development (natural gas, oil shale, and coal), ranching with a broadening agricultural crop base, and recreation use. This pattern has occurred

because of changing social and economic demands at the national, regional, and local levels, including the current emphasis on energy development. More resource use conflicts are becoming evident and require resolution. With the enactment of the Federal Land Policy and Management Act of 1976 (FLPMA), BLM's management directives have increased emphasis toward multiple use management of all resources.

II. THE PROGRAM

A. What It Is

The proposed action which is highly intensive management of 92 percent of the area, was analysed in the environmental statement and was determined to be the most environmentally preferable alternative. The other six alternatives analyzed were environmentally acceptable, but were not as responsive to all environmental components especially the social and economic as was the proposed action.

The proposed action is to implement intensive livestock management of 79 allotments on 824,537 acres, completing implementation of 8 AMPs on 264,541 acres, and continuation of 3 existing AMPs on 17,416 acres. The proposal also includes the implementation of 87 less intensive AMPs on 78,476 acres and the elimination of livestock grazing on 2 allotments which contain 15,887 acres.

Livestock use would be initially reduced from the present level of 94,526 AUMs to 82,139 AUMs. Livestock use could be increased up to 93,449 AUMs and for wildlife up to 32,523 AUMs from the present level of 28,870 AUMs by the year 2000 if the land use decision directed these levels of allocation of forage to livestock use. Some forage could be allocated to other uses such as watershed protection, aesthetics, etc.

In order to fully implement the proposed grazing management program, there are a number of rangeland improvement projects that will have to be constructed on the allotments. These projects will facilitate the livestock management, improve vegetation health and vigor thereby providing more forage for both livestock and wildlife, and reduce erosion which will improve water quality in the long term. The analysis in the ES has shown that the majority of the various environmental components will be enhanced by the management program and the facilities required to implement the management. These various projects have been designed to reduce the impacts of their construction and existence. An example is the design of water developments for use by small animals and birds as well as livestock.

The projects would consist of 13,700 acres of vegetative manipulation, 94 water projects, 123 miles of fences, and 157 miles of pipelines. The total cost of the entire proposal is 3.4 million dollars. There were several mitigating measures identified that will be implemented. Watershed projects will be developed to reduce salinity, erosion, and sediment yield; pipelines and fence posts will not be installed in live stream channels; adverse impacts to cultural resources will be mitigated.

Implementation of this proposal will improve the majority of resources found on the area. Some will be improved to a greater degree than others. The BLM planning system was utilized in the formulation of the proposal and results in management decisions concerning particular resources on a given area. It is responsive to major social issues, land use objectives, and economic concerns.

The original proposal in the ES has been modified to reflect changes in the present situation and results of new data. These modifications are: 1) three allotments have changes in kind of livestock, 2) four allotments have changes in types of grazing systems, and 3) one allotment is changed from less intensive to intensive AMP; other minor changes in the number and types of projects have been identified. Each modification will be assessed in a site specific environmental assessment prior to implementation.

Other actions that will coincide with the proposal are the Roan Creek Habitat Management Plan, which is a comprehensive wildlife habitat management plan. This plan will increase the quality of the wildlife and livestock habitat by reducing the competition between them and increasing the quality and quantity of desirable forage. These changes will reduce the amount of surface runoff and sedimentation, which in turn will increase the water quality for aquatic life and domestic use. The benefit to recreation use will be aided by higher quality wildlife populations and more diversified species. The Great Basin Silverspot Butterfly studies and research are designed to study and protect the butterfly which is proposed for threatened status. At the present time it is felt that livestock grazing is the major conflict with the butterfly's habitat. The habitat is small and fragile which will require very intensive studies. The Badger Wash Management Plan will study the effects of oil and gas activities on salinity and erosion. This area has been under intensive study on the effects of livestock grazing for the past 25 years. This proposed study will reveal what effects the extraction of oil and gas have on erosion and sedimentation. From these results the BLM and oil companies can design procedures to improve water quality and reduce erosion. This, in turn, will benefit all resources in the area.

B. What It Does

The selected proposal will better meet more of the objectives to resolve identified resource problems, economic needs, and public concerns than any other combination of alternatives. It is cost effective and accomplishes the necessary adjustments in livestock use. The impacts listed below are characterized as either short or long term. Short term is defined as the implementation period (8 years) plus one grazing cycle (3 years). Long term is defined as more than 11 years. Resource problems were identified and the following objectives formulated to resolve these problems:

1. Provide an improved range condition capable of supplying 152,100 AUMs of forage for livestock, wildlife, and other resource uses on a sustained yield basis (long term).

2. Provide livestock forage at a sustained yield of 82,139 AUMs (short term) and 93,449 AUMs (long term) annually to increase production of beef, mutton, and wool to meet the American public's needs for these products.

3. Minimize wildlife/livestock competition on critical and severe erosion condition classes on 235,159 acres (long term).

4. Improve range condition by improving vigor, ground cover, and species composition, which would increase the amount of land in good range condition by 372,525 acres (long term).

5. Reduce the present area in moderate, critical, and severe erosion condition classes by 235,159 acres (long term).

6. Major changes in the existing environment that will be a result of implementing the proposed action are:

   a. Livestock Habitat (long term)

      Present plant composition will be maintained where the range is currently in a favorable condition. Where range is in less than favorable condition, the percent composition of desirable species will be increased. The expected result will include the following changes by condition class:

	Present (Acres)	Change (Acres)	Future (Acres)
Good	216,885	+358,510	575,395
Fair	566,403	-107,448	458,955
Poor	417,569	-251,062	166,507
Total	1,200,857		1,200,857

      Livestock forage available at the start of the implementation will be 82,139 AUMs, which is 87% of the present level. By the year 2000 there will be 93,449 AUMs available for livestock use (long term).

      Total forage production which includes wildlife forage will increase from 136,800 AUMs to 152,100 AUMs by the year 2000 (long term).

b. Wildlife Habitat

Shrub species composition will be maintained. Percentages of annual browse growth for particular species of wildlife will be reserved; in several cases, certain forb and browse species will be increased (long term).

Predictions of long term wildlife populations were made in relation to predicted increases in wildlife habitat. Those predictions are shown below:

Species	Present Population	Change	Future Population	Percent Change
Mule Deer	32,759	+1,457	34,216	4%
Elk	1,986	+ 13	1,999	1%

Wildlife Forage (AUMs)

Present	Change	Future	Percent Change
28,870	+3,653	32,523	+11%

Aquatic and riparian habitats will show an improvement on 15% (52 miles) of the total and the remaining 85% (360 miles) will remain stable (long term).

c. Watershed Protection (long term)

By increasing ground cover, soil losses will be reduced. Erosion condition class will change by the following amounts:

Erosion condition	Present	Future
Stable	50,174	61,437
Slight	254,948	463,550
Moderate	588,525	501,017
Critical	278,502	152,698
Severe	28,708	22,155
total	1,200,857	1,200,857

d. Socio-Economic Conditions (long term)

Total personal income after the year 2000 will increase by $146,000 per year, which is a 1% increase over present levels.

Personal income is derived from livestock, construction, government, and recreation-related sources.

Hired ranch employment after year 2000 will increase by 13 person-years, which is a 1% increase over present levels.

III. THE ALTERNATIVES

The final ES of the grazing management program addressed the proposed action and the following six alternatives:

Alternative A, No Action
Alternative B, Continuation of Present Grazing Management
Alternative C, Elimination of Grazing
Alternative D, Wildlife Effective
Alternative E, Watershed Effective
Alternative F, Elimination of Spring Grazing

The following sections briefly describe and evaluate each alternative. The impacts described would all occur by the year 2000 which is 20 years after implementation. All allotments analyzed in the proposed action were analyzed in each alternative.

Alternative A, No Action

Under this alternative, livestock grazing would be managed at a low intensity. Further implementation of existing AMPs would not occur and additional AMPs would not be developed. No range facility projects would be constructed. Stocking rates and periods of use would remain at the existing level of 94,526 AUMs for livestock. Wildlife use would increase from 28,870 AUMs to 29,220 AUMs.

It is assumed that no increases or reductions in livestock grazing levels would occur on any of the allotments.

There would be a decrease in the quality and quantity of vegetation. This would result in a reduction in wildlife and livestock forage. The wildlife populations would increase slightly over the entire area. The possibility of endangered or threatened plants decreasing in the area is high. Along with the decline of vegetation, an increase in erosion would be expected. The local social attitudes toward improved ranges and range improvement would not be satisfied with this alternative. This alternative was not chosen because it would not improve the range condition, forage production, or erosion condition.

Alternative B, Continuation of Present Grazing Management

This alternative proposes no change in present practices. With this alternative, BLM's existing management program and policies would continue.

In order to comply with the Federal Land Policy and Management Act (FLPMA), adjustments in grazing levels would be administered as the need is identified. All AMPs (except the 11 existing AMPs) would involve less intensive management; only the periods of livestock use, kind of livestock, number of livestock allowed on the allotments, and any other stipulations deemed necessary by the Secretary would be designated.

Under this alternative, the 11 existing AMPs would continue to be intensively managed. Eight existing AMPs, not fully implemented, would continue to have proposed facilities constructed as funds and manpower became available until full implementation was achieved.

Prior to implementation of AMPs, a range survey or other studies would be conducted, where necessary, to determine the present level of range forage production and the estimated livestock grazing capacity. Livestock levels would then be adjusted, if necessary. It is anticipated that stocking levels would be reduced from the present level of 94,526 AUMs to 82,139 AUMs which is a 13% reduction.

Vegetative condition and trend would improve on allotments under AMPs which would increase wildlife and livestock forage. Wildlife use would increase from 28,870 AUMs to 29,664 AUMs. Soil erosion would decrease over the area. The reduction of 12,387 AUMs of livestock use would result in an annual ranch income loss of $478,600. This income loss would reduce the tax base for local counties by $3,800 yearly. The elimination of proposed projects would contribute to income loss countywide. This alternative was not chosen because the range condition and forage production for both livestock and wildlife would not increase to the desired levels. Economic conditions would not improve significantly.

Alternative C, Elimination of Grazing

This alternative proposed the elimination of livestock grazing on public lands. New rangeland improvement facilities would not be permitted; however, existing facilities which enhance wildlife or recreation values would be maintained for these resources. Public land would be managed for resource values other than livestock grazing. Livestock operators would have to move their livestock to their privately owned or other lands. Livestock operators on private land are required to control their livestock and prevent trespass on public lands, which may create the need for 2,807 miles of fence construction.

Rangeland condition would improve with this alternative at about the same rate as the proposed action. Erosion and sedimentation would decrease. Wildlife forage would be increased from 28,870 AUMs to 32,540 AUMs and populations would increase to about the

same levels as with the proposed action. There would be a significant improvement in the riparian and aquatic habitats. Livestock users would lose 94,526 AUMs of use on the public lands. This would yield an annual loss of $3,502,352 in personal income, an annual tax base loss of $29,120, and an annual loss of 63 person-years in employment. A traditional lifestyle and use of public lands would also be lost. A large percentage of the existing 138 livestock operators would probably be forced out of the livestock business. This does not meet the mandates of FLPMA in providing livestock forage on a sustained yield basis. This alternative was not chosen because of the severe social and economic impacts on the entire resource area.

Alternative D, Wildlife Effective

This alternative proposes grazing program components that would favor wildlife objectives. Kind, numbers of livestock, and periods of use would be the primary items adjusted to achieve desired objectives. Stocking levels would be reduced from the present level of 94,526 AUMs to 67,982 AUMs, which is a 28% reduction. AMPs under the proposed action would generally be implemented, including mitigation measures, as planned; however, this alternative would modify grazing periods of use, numbers, and kind.

There are five components consisting of systems based on (1) elk winter range, (2) deer winter range, (3) deer intermediate range, (4) elk or deer summer range, and (5) pronghorn range.

The range condition would improve and plant production would increase more than with any other alternative. Erosion and sedimentation would decrease. Wildlife use would increase from 28,870 AUMs to 33,620 AUMs due to reduced competition with livestock. The wildlife numbers would increase more than with the other alternatives. There would be a significant improvement in aquatic and riparian habitats. A reduction of 26,544 AUMs would occur in livestock grazing which would cause an annual loss of $906,132 in personal income, $8,154 annual loss in tax base, and 5 person-years loss in employment yearly. There would be some economic increases resulting from increased hunter and recreational use. This alternative was not chosen because of the high social and economic impacts.

Alternative E, Watershed Effective

The purpose of this alternative is to optimize watershed protection by improving total ground cover and eliminating soil compaction during critical wet periods in certain allotments. Allotments located within the ES area would have spring-summer grazing (March 15

to September 15) either eliminated or changed to fall-winter grazing. All other portions of the proposed action including mitigating measures would remain unchanged. Livestock use would be reduced from 94,526 AUMs to 74,617 AUMs which is a 21% reduction.

Spring grazing would be eliminated on three existing AMPs, 14 proposed intensive management AMPs, and 13 less intensive management allotments. Both spring and summer grazing would be eliminated on three proposed AMPs (intensive) and six less intensively managed allotments. Grazing would be shifted from spring and summer on four proposed AMPs (intensive) and two less intensive management allotments.

The range condition would improve and production would increase. Erosion and sedimentation would be reduced more than with any other alternative. Wildlife use would increase from 28,870 AUMs to 32,372 AUMs and populations would increase over a long term period. There would not be significant improvement in the aquatic and riparian habitats. Livestock use would be reduced by 19,909 AUMs. This reduction would cause annual personal income to decline by $631,253, the annual tax base would be reduced by $7,812, and 5 person-years of employment would be lost yearly. This alternative was not chosen because the range conditions would not reach the same levels as with the proposed action. The aquatic and riparian areas would continue to decline. High economic impacts would also result.

Alternative F, Elimination of Spring Grazing

This alternative proposes the elimination of all livestock grazing during the spring growing period (defined as March 1 to May 31 for analysis purposes). The reduction in grazing would be from 94,526 to 55,200 AUMs, which is a 42% reduction. In addition, allotments with stocking levels above present production would have grazing use reduced to equal present production levels. Under this alternative, the 11 existing AMPs would continue under intensive management, with grazing systems modified to eliminate spring use. These modifications could reduce the number of pastures and range facilities needed to implement the AMPs. Eight of the existing AMPs that are not fully implemented would continue to have proposed facilities constructed as needed to implement the modified grazing plans as funds and manpower became available.

Range condition and production would improve with this alternative. The erosion and sedimentation reduction would be approximately the same as alternative E. Wildlife use would increase from 28,870 AUMs to 31,332 AUMs due to the reduced competition with livestock and thus wildlife populations would increase. A loss of 38,326 AUMs in domestic livestock grazing would cause an annual loss of $1,574,430 in personal income, annual tax base loss of $14,880, and an annual loss

of 36 person-years of employment. This alternative was not chosen because of less improvement in forage production on critical deer winter ranges when compared to the proposed intensive management on 78 allotments. Range condition would improve at a much slower rate and would not reach the levels of the proposal. Severe economic impacts would also result from this alternative.

IV. PUBLIC INVOLVEMENT

This section summarizes public involvement during the planning, environmental assessment, and decision-making phases of the grazing management program.

During planning for the various units BLM held numerous public meetings. All known user and interest groups were contacted and invited to participate. Most groups and individuals did actively participate.

While the AMPs were being developed each livestock permittee was personally contacted and their input was requested for the respective AMP.

During the process of writing the Environmental Statement several meetings were held as shown below:

11/17/77 - Public meeting explaining ES process and scope

11/18/77 - TV interview of team leader

12/20/77 - Meeting with Advisory Council on Historic Preservation, Colorado State Archaeologist, and Colorado State Historian

05/04/78 - Briefed District Grazing Advisory Board on ES process and scope

05/22/78 - Formal consultation with U.S. Fish & Wildlife Service on endangered species

11/20/78 - Briefing and field trip with Colorado Cattlemen's Association (CCA) and Colorado Wool Grower's Association (CWGA) steering committee

12/12/78 - Briefing for District Grazing Advisory Board

05/03/79 - Briefed CCA-CWGA committee on ES

04/20/79 - Public comment period began

05/10/79 - Public hearing on ES

06/04/79 - Public comment period end

Copies of the draft ES were sent to over 250 federal, state, and local government agencies and user groups. All review comments were addressed, where appropriate, and included in the final statement.

The livestock industry was primarily concerned with the use of old vegetative inventory data in the computation of estimated livestock grazing capacity.

Some users were not supportive of intensive management and would like to continue historic use. Other comments concerned the allocation of forage between wildlife and livestock, projected increases in wildlife numbers, and the benefit/cost analysis.

V. IMPLEMENTATION

Implementation of the decisions concerning the management of grazing in the Grand Junction Resource Area will follow as closely as possible the 8-year schedule as described in the ES.

A. Administration Actions

The District Manager will issue a decision in 1980 to each livestock operator in the Grand Junction Resource Area. Each decision will contain the following:

1. Authorized initial stocking rate
2. Periods of use
3. Kind of livestock
4. Grazing system (AMP)
5. Schedule for reductions
6. Summary of monitoring program.

Wildlife forage will be reserved on each grazing allotment for wildlife use only.

B. Range Improvements

Range improvements necessary for implementation of the grazing systems are shown below:

Chaining and seeding	3,845 acres
Seeding	910 acres
Brushbeating	5,450 acres
Pinyon-juniper thinning	2,480 acres
Burning	1,000 acres
Boundary markers	560 acres
Reservoirs	47 each
Catchments	9 each
Spring developments	31 each
Wells	7 each
Pipeline (water)	157 miles
Fences	123 miles
Cattleguards	23 each
Roads and trails	10 miles

Total project cost is estimated to be $1,473,600.

These projects are presently scheduled over an 8-year implementation period.

C. Related Actions

Other actions scheduled to be implemented are the Roan Creek Habitat Management Plan, the Great Basin Silverspot Butterfly studies and research and the Badger Wash Management Plan. A major planning revision will begin in 1982 for the entire ES area and will be completed in 1985.

D. Grazing Use Adjustments

There will be a 12,387 AUM reduction in the authorized livestock grazing use. Sequencing of all reductions will be worked out with each operator within the limits of existing regulations at the time of negotiations. Thirty-one livestock operators will be affected. The reductions range from 2 percent to 75 percent on individual operations with an average of 29 percent on the 31 livestock operations. Operators will be given the opportunity to voluntarily take the reduction in its entirety or in increments, with a heavier reduction the first year, to initiate a positive change in the vegetation condition.

E. Appropriations

Development of range improvement facilities and grazing management systems will be based on budget appropriations, and the rate of development will be subject to change in future budget appropriations.

F. Monitoring

The following studies will be conducted to monitor the grazing management and to judge the effectiveness and progress toward established goals:

1. Actual use. Permittees will record actual dates and number of livestock on the allotment.

2. Utilization. The percent of a plant's annual growth removed by grazing animals.

3. Range trend. Photographic studies and measurements of trend and range condition, ground cover, and plant composition.

4. Key plant species development dates. The dates various plants reach certain stages in their annual growth, such as seed ripe. These dates are critical in designing and revising grazing management systems.

5. Best pasture determination. The best pasture will be determined using key species developmental stage, soil moisture, range trend, time of year, local weather conditions, other important forage growth stages, and availability of livestock water.

6. Climate. Temperature and precipitation data will be gathered and correlated with the other study data.

7. Soils. Field checks of soil surface factors (SSF) (erosion condition) will be conducted after each grazing cycle on each allotment. Soil moisture, compaction, and onsite erosion will also be monitored.

8. Water resources. Selected areas will be monitored for channel geometry and infiltration.

9. Threatened and endangered plants. The proposed T/E plants in the ES area will be studied to determine the effects of livestock grazing on these plants.

10. Wildlife. The following species and habitats will be monitored for possible impacts from livestock grazing:

    a. Great basin silverspot butterfly
    b. Prairie dogs
    c. Sage grouse
    d. Bighorn sheep
    e. Elk winter range
    f. Aquatic and riparian habitats
    g. Mule deer.

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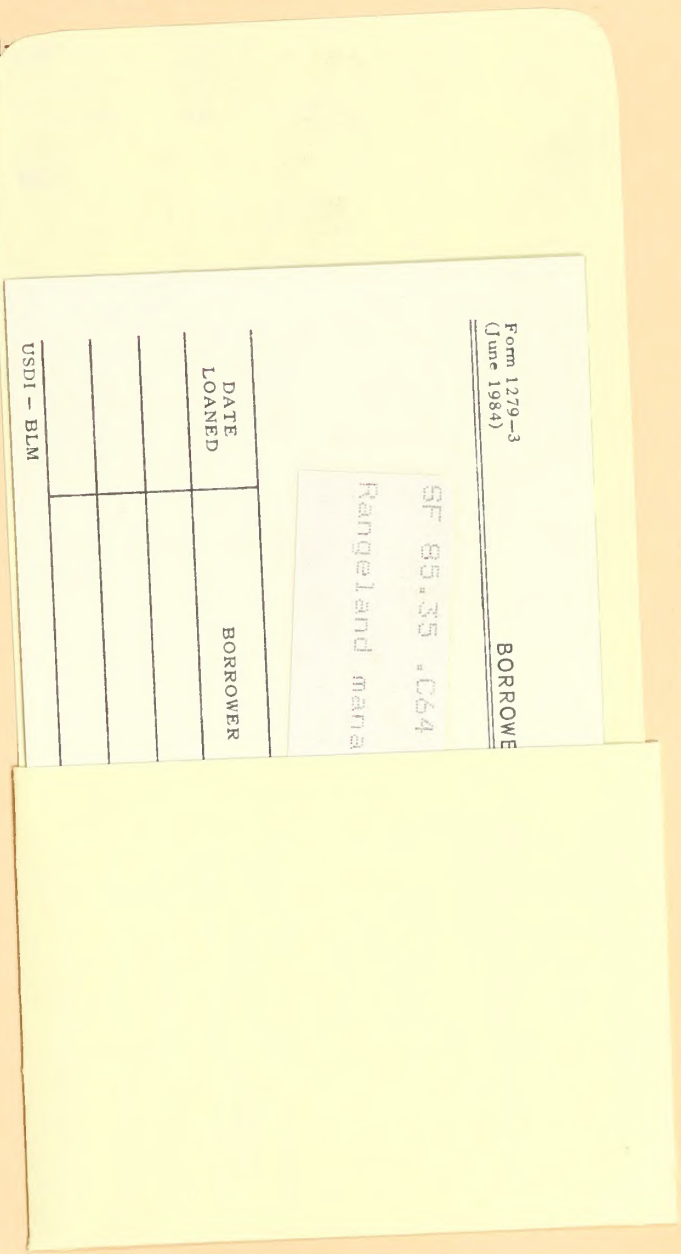

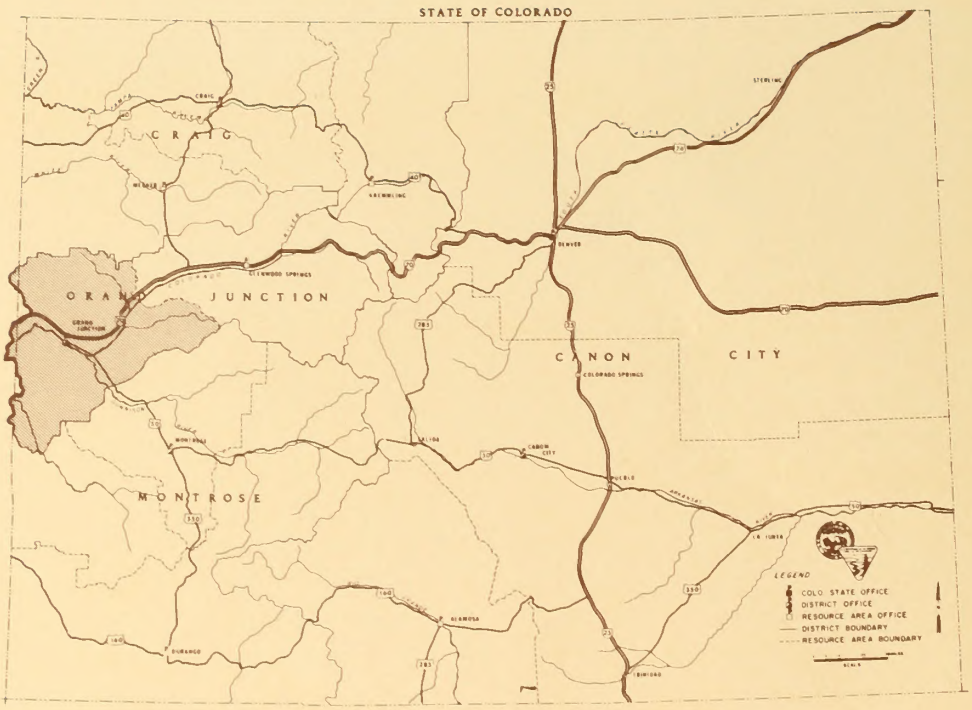
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